

Historic, Archive Document

Do not assume content reflects current scientific knowledge, policies, or practices.

633
y2

SLC

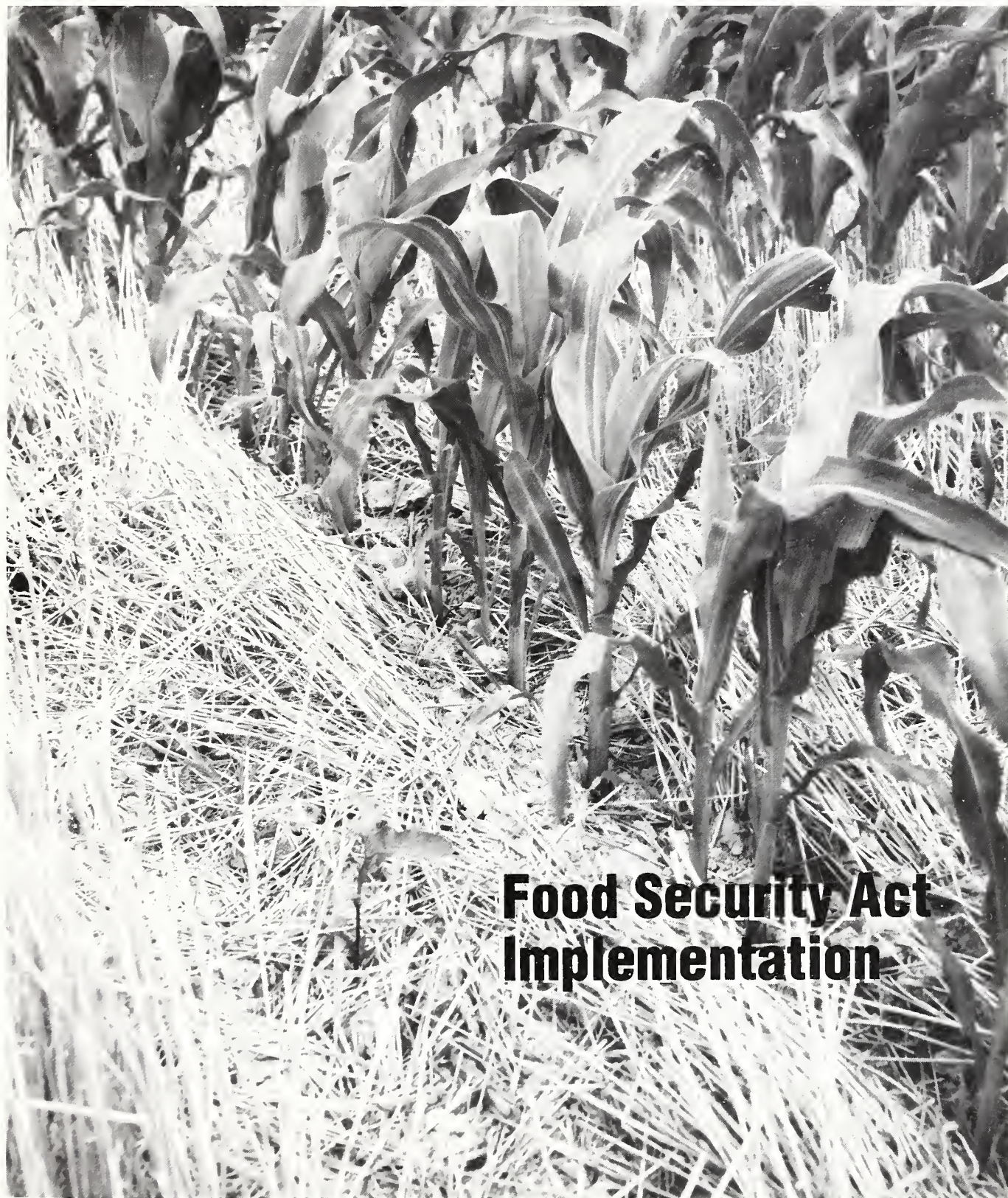
and **Soil Water Conservation** NEWS

United States
Department of
Agriculture

Soil
Conservation
Service

SEPTEMBER-OCTOBER 1990

Volume 11, Number 5



**Food Security Act
Implementation**

Cover: No-till planting and cover crops are frequent conservation practices included in Food Security Act compliance plans. By July the month-old corn is breaking through remaining residue from the wheat cover crop on this southern Illinois farm. (SCS photo.)

Soil and Water Conservation News is the official magazine of the Soil Conservation Service. The Secretary of Agriculture has determined that publication of this periodical is necessary in the transaction of public business required by law of this Department. Use of funds for printing *Soil and Water Conservation News* has been approved by the Director of the Office of Management and Budget. *Soil and Water Conservation News* (ISSN-0199-9060) is published 6 times a year. Postage paid at Washington, D.C.

Soil and Water Conservation News and other SCS reports are available electronically on the Computerized Information Delivery (CID) System. For subscription information, call 202-447-5505.

Clayton Yeutter
Secretary of Agriculture

R. Mack Gray
Acting Chief, Soil Conservation Service

Henry Wyman, Director
SCS Public Information Division

Leslie Jane Wilder
Editor

Paul DuMont
Associate Editor

Kim Berry-Brown
Contributing Editor

Chris Lozos
Design Consultant

Magazine inquiries
Send inquiries to: The Editor, *Soil and Water Conservation News*, Public Information Division, Soil Conservation Service, U.S. Department of Agriculture, P.O. Box 2890, Washington, DC 20013-2890.

Subscriptions
\$6.00 per year domestic; \$7.50 per year foreign. Single copies \$1.25 domestic; \$1.50 foreign. Send subscription orders to: Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402

Reprint permission
Content of this magazine may be reprinted without special permission. Mention of source is requested. Photos available on request.

Commercial names
Mention of commercial enterprises or brand names does not constitute endorsement or imply preference by the U.S. Department of Agriculture.

All programs and services of the Soil Conservation Service are offered on a nondiscriminatory basis, without regard to race, color, national origin, religion, sex, age, marital status, or handicap.

Comments from the SCS Chief:

FSA Implementation: Putting Those Plans To Work

Implementing the conservation plans developed to comply with the 1985 Food Security Act (FSA) is the biggest challenge facing the Soil Conservation Service and America's soil and water conservation districts.

We can be proud of the overall effort that has been made in FSA planning and implementation. That includes the way SCS and soil and water conservation district employees have tackled the FSA workload. Over the last few years, SCS has broken new ground in customer service, largely out of necessity to meet conservation compliance deadlines.

We've conducted extensive information campaigns and used whatever resources were needed to get the job done—group planning, computers, staff details, volunteers.

We've helped every farmer or rancher who wanted to develop a conservation plan. These plans are, for the most part, flexible, realistic, practical, and affordable, and are accepted by the local farming community.

We expect implementation to be a good experience for producers. If a farmer has a problem with the timetable, or if new practices aren't working out, he or she should let SCS or the district know. SCS field offices and district offices are there to help.

December 31, 1994, may seem like a long way off, but everyone who has a compliance plan should start early. Producers are going to need time to adopt management practices that are new to them.

The enormous effort underway as a result of FSA conservation provisions will benefit all Americans. Soil conservation sustains the productivity of the land and keeps our streams, lakes, and reservoirs clean. I believe I speak for all of us in expressing appreciation to everyone involved in this effort to conserve our natural resources.



Acting Chief

Implementation

Putting FSA To Work: *an overview*

THE LANDS WERE designated, the producers were contacted, and the plans were written. Producers have until 1995 to complete their plans. And the Soil Conservation Service is expanding its efforts to help producers meet their goals.

As of June 1990, nearly one-third of the 1.3 million producers who signed up for Food Security Act (FSA) compliance plans had fully implemented their plans.

Over 42 million acres out of the Nation's 136 million acres of highly

erodible cropland (HEL) were "conservation treated."

The 1985 farm bill stipulated that growers who continue to produce annual crops on HEL—and want to remain eligible for U.S. Department of Agriculture program benefits—must have approved compliance plans for those acreages by December 31, 1989. Producers must actively begin planned conservation measures with their 1990 crop and complete the measures by January 1, 1995.

To determine lands requiring HEL classification, SCS used soil information and erosion formulas to identify map units on soil survey photographs.

SCS took on a major work load between 1985 and 1989 to get these 1-million-plus plans written. Plans were completed on schedule for everyone who requested them.

SCS purchased computers and installed various software programs, like CAMPS, CARE, and Compare, to help field office planners present land-use alternatives and record landowner decisions more quickly. Volunteers were recruited and trained in data entry and map preparation to assist SCS in compliance plan preparation. SCS staffs were increased as funds permitted.

In early 1989, SCS launched a successful national public information campaign, "Make Your Move Now," to alert farmers and ranchers with HEL that they had less than 1 year to get their conservation plans.

Now with the December 31, 1989, deadline met, SCS is concentrating its efforts in the next 5 years on FSA implementation. Record numbers of conservation plans are scheduled to be applied to the land—a real challenge for SCS.

FSA field-check reviews by SCS national headquarters and national technical centers during the past 2 years pointed out some areas of concern:

- Many producers with new plans do not completely understand their plan contents and their



Contour stripcropping of corn and alfalfa, such as in northwestern Illinois, is one of the conservation measures that farmers with FSA compliance plans are using to control erosion on highly erodible lands. (SCS photo.)

All SCS'ers must help agricultural producers fully understand contents and benefits of their [Food Security Act compliance] plans.

responsibility for implementing them.

- Many producers agreed to plans that may be difficult for them to implement.
- Producers expect technical and financial assistance to be available.
- SCS technical assistance and various sources of financial assistance may be insufficient to help producers fully implement their plans.

All SCS'ers must help agricultural producers fully understand contents and benefits of their plans. We helped them decide on their plans. Now we have to help them make the plans work.

A new FSA public information effort will help SCS field office staffs reach the right producers with the right information. It will stress recognition, understanding, "how-to," flexibility, and benefits.

Scheduled materials for field use include sample recognition certificates, radio and video public service announcements, slide sets, talking points on plan flexibility, and guidelines for workshops and open-house meetings.

"How-to" videos will help producers better understand the nuts-and-bolts application of simpler conservation practices called for in their plans.

Nontraditional areas of getting and using technical assistance—contractor certification, aggressive recruitment, and training volunteers—are well underway and will be expanded.



Terraces with grassed backslopes, such as these in southwestern Iowa, help control soil erosion on highly erodible lands. (SCS photo.)

SCS is working with the Land Improvement Contractors of America (LICA) and with unaligned contractors to teach them how to better construct conservation practices like terraces, irrigation facilities, and erosion-control structures. This will vastly simplify certification-of-completion checks by SCS staffs.

Volunteer programs are being expanded in many SCS field offices. Volunteers who helped SCS on computerization duties and field activities are being trained to check on FSA compliance implementation.

FSA implementation needs to be tempered with commonsense conservation application: help the producer do what he or she wants and

can afford, yet still achieve reduced erosion rates.

Limited-resource, small-scale, and minority farmers may need special help to get their FSA obligations implemented.

FSA-obligated producers expect quality technical assistance, yet seasoned understanding from SCS. With information, education, and expertise, SCS can give them what they need.

In turn, producers can give the Nation what it needs—a stabilized topsoil cover, for today and tomorrow.

Gene Andreuccetti, conservation planning director, SCS, Washington, D.C.

"After training, contractors can check as they work...do their final check, fill out the forms, and move on to the next job."

Trained Contractors Ease SCS Work Load

THOSE LAND improvement contractors with added conservation training are helping agricultural producers increase their application of erosion-control measures called for in Food Security Act (FSA) compliance plans," said Tom Hammer, SCS State engineer in Nebraska.

"And this contractor training greatly reduces checkout of practices by our Soil Conservation Service field staffs."

Nearly 2,000 contractors have received SCS conservation training. SCS now saves 400,000 hours per year of staff time, which is used for planning, design, and other priority work.

SCS works actively with State and local chapters of the Land Improvement Contractors of America (LICA) to provide training opportunities for their members. Independent contractors are also being trained.

Twenty-eight States presently run SCS conservation training programs for contractors. Conservation district and Extension Service personnel may assist. Alabama, Illinois, Kansas, Missouri, Nebraska, North Dakota, and Oklahoma are among those with active programs.

Contractors study surveying,

layout, and checkout procedures. They learn about SCS conservation practices, particularly those erosion-control measures often included in FSA compliance plans. And they learn why SCS needs documentation for FSA compliance and U.S. Department of Agriculture cost-share programs.

When trained conservation contractors demonstrate their layout and checkout skills in "on-the-job" situations where they work, SCS field office staffs learn to adjust their site visits accordingly.

"Trained conservation contractors will follow engineering specifications and not overbuild," said Hugh Curry, SCS State conservation engineer in Missouri.

"The finished job will meet the producer's needs, accomplish soil and water conservation goals, and qualify for cost-share benefits if appropriate.

"When unforeseen problems arise, the contractor's conservation training helps in solving them," Curry continued. "Rarely does the contractor have to stop work until SCS personnel can arrive."

SCS field staffs in many States are reporting an improved quality of constructed practices because conservation-trained contractors

better understand design and construction drawings. And contractors are thanking SCS for the training they received, particularly checkout.

"In Kansas, checkout involves verifying and documenting that the completed work complies with plans and specifications developed for that site," said Jim Wallace, SCS State conservation engineer. "Most contractors here like to do their own checkouts."

Fuzz Haile, a contractor in Rice County, Kan., said, "After training, contractors can check as they work, and when they're finished, they do their final check, fill out the forms, and move on to the next job.

"They don't have to wait for a busy technician. It's been a tremendous improvement in operations for everyone."

As SCS continues helping FSA-obligated producers implement their plans, the agency needs to use all means available to get the work done by 1995. Conservation-trained contractors will make the job easier.

Wendell B. Moody, assistant director, engineering division, SCS, Washington, D.C.



Land improvement contractor (left) discusses installation of FSA compliance measures with landowner. Contractor's conservation training helps him do jobs more quickly and efficiently. (SCS photo.)

Neighbor-to-

It's Old. It's New. It's Conservation Revitalized!

COFFEE SHOPS and cafes promote it. Banks, barber shops, and agribusinesses publicize it. Farmers, ranchers, and city people volunteer for it.

It's Neighbor-to-Neighbor conservation—a grass-roots outreach that is revitalizing the conservation ethic through person-to-person action on the land and widespread publicity at local shops and businesses about good land management.

Launched in the 12-county Platte Territory of northwest Missouri, the program today has become a model for national emulation. The concept is as old as our Nation and as fresh as today's newspaper headlines. Volunteer farmers, ranchers, and urbanites serve as hosts to people who want to view specific conservation practices on the land. Visitors can walk the land with their hosts and discuss the practices they see. Or, they can take self-guided tours.

Neighbor-to-Neighbor is strengthened by the world's newest and oldest forms of communication. The newest: computerized data on land and people, recorded in tour directories that are prominently placed at conservation district offices, local coffee shops, businesses, and

other public places. The oldest form of communication: person-to-person, over-the-fence, front porch, coffee shop, and neighbor-to-neighbor conversation.

The tour directories—created by landowners and professional conservationists—are the indispensable link between the public and Neighbor-to-Neighbor hosts who showcase their land.

They contain fact sheets that give the names, addresses, and

phone numbers of landowners who are showcasing their conservation activities. There is information about each practice, and maps with detailed directions to tour sites. Prospective visitors are encouraged to tear out and keep the fact sheets for their permanent reference.

Large Neighbor-to-Neighbor road signs identify each tour site. The signs include the tour host's name, telephone number, and featured conservation practices.

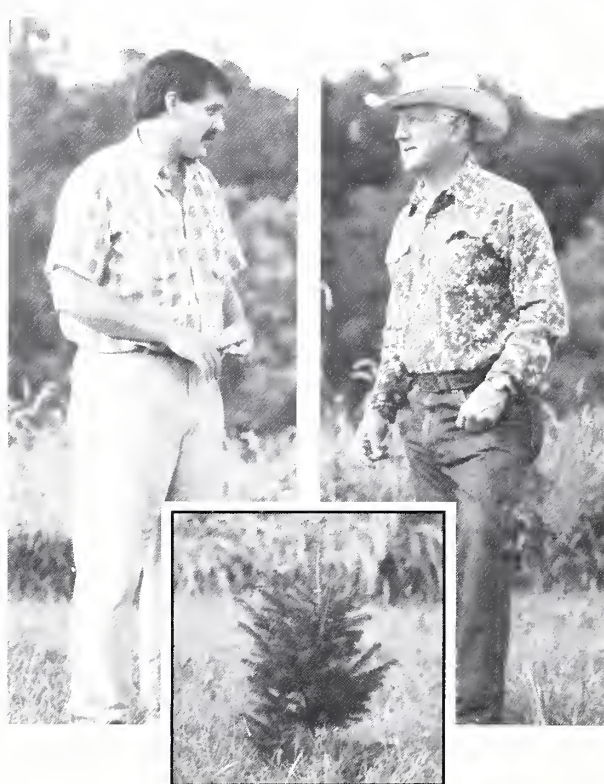
The variety of practices showcased is impressive: windbreak renovation, rotation grazing, sustainable agriculture, warm-season grasses, surge-flow irrigation, grassed waterways, and streambank stabilization, to name only a few.

Neighbor-to-Neighbor's generic quality, its universality, is equally impressive. It can be used to demonstrate any conservation practice or program, anytime, anywhere.

How is Neighbor-to-Neighbor different from traditional demonstration farms and agricultural field days?

"They're as different as a 12-course, year-round banquet and a fast food snack on the run," says one Missouri farmer.

"A field day event usually lasts 1 or, at most, 2 or 3



Conservation practices such as this windbreak in-the-making are discussed by Missouri wildlife biologist Reggie Bennett, left, and farm owner and Kansas City businessman Ken Jenkins. (Photo by Bob Nichols.)

Neighbor

days. But Neighbor-to-Neighbor tour sites are open year-round. My neighbors can see conservation on my land anytime that's convenient for them."

District conservationists point out that once the program gets underway, it acquires such a highly personalized, one-on-one momentum that conservation action on the land accelerates dramatically.

Dan Switzner, district conservationist in Clinton County, Mo., says: "When we give a farmer a Neighbor-to-Neighbor fact sheet about specific conservation practices, that farmer goes directly to the host farmer who is showcasing the practices. From that moment on, the government is no longer the driving force.

"What the host farmer tells a neighbor is frank and unrehearsed. The setting is relaxed. As the two talk and walk over the land, they discuss the advantages and disadvantages, the costs and the profitability of applying each practice on the land.

"This kind of frank and spontaneous talk means a lot to farmers who are understandably skeptical about changing techniques they may have used for decades. Let's face it! When one farmer tells another that something works, he's apt to be believed."

Neighbor-to-Neighbor, then, is a dialogue of trust. But it is also a dialogue that brings tour hosts a special kind of satisfaction.

David R. Jones' 380-acre corn, soybean, and wheat operation in Agency, Mo., features grass-backed and broad-based terraces. He tells his visitors that his conservation system not only reduces soil loss but also provides nesting and win-

ter cover for bobwhite quail.

"When the quail arrived," he says, "that taught me a lot about relationships. I tell my guests that what's good for wildlife is generally good for people, too."

He adds: "It makes me feel great to tell visitors that this land has been farmed by my family for more than 100 years, and then show them the conservation practices that will protect the land for centuries more."

Eighty-nine-year-old Osborn, Mo., farmer Frank Bennett says, "When we walk through my shoulder-high switchgrass or reed canarygrass waterways, I'm proud to prove to visitors that there are such effective and economical ways to protect our natural resources."

In nearby suburban Gower, Mo., a new homeowner and her two teenage daughters have planted 2,000 black locust and eastern redcedar trees on their 5-acre homesite, a venture she calls their Neighbor-to-Neighbor Energy Plantation.

"Look at our seedlings," Marsha Kiesling says, pointing to the neatly spaced rows. "In 2 years they'll be 15 feet tall, and in 9 years we will harvest the mature crop for home energy. The crop is renewable, of course, and we'll plant again, knowing that we're helping to keep Planet Earth healthy."

Any community can develop a Neighbor-to-Neighbor conservation outreach, but careful planning is essential.

"There are no shortcuts," says Martin W. "Buck" Burch, SCS area conservationist for Missouri's 12-county Platte Territory. "It's hard work, but look what we're accom-

Neighbor-to-Neighbor Fact Sheets Should:

- Identify tour hosts.
- Direct visitors to tour stops.
- Describe featured conservation practices and the support measures that make this stop a conservation system.
- Tell when the conservation measures were installed.
- Tell what government agencies or private organizations provide financial assistance.
- Show how wildlife habitat has improved.
- Provide additional site information based upon personal interviews with tour hosts and resource professionals.
- Describe the esthetic qualities of the conservation activities.
- Include candid quotes from tour hosts about their conservation objectives. Encourage hosts to discuss the tradeoffs they made in choosing one conservation practice over another.
- Give the address and telephone number of your conservation district and encourage tour participants to contact the district for further information.

plishing! Isn't it time that we market conservation to a much wider audience? And that's exactly what we're doing.

"Neighbor-to-Neighbor is a master stroke that can strengthen the conservation ethic in cities and towns across America."

Shirley Foster Fields, public affairs specialist, SCS, Washington, D.C.

Conservation

10-step procedure to organize Neighbor-to-Neighbor in your community

1. Inventory your community's conservation needs. For example: What conservation practices are needed to control soil erosion and improve water quality on farms and ranches? In urban areas, is there a need for improved landscaping on public or private lands?

2. Identify priorities. Begin by promoting conservation practices needed now.

3. Select tour sites and hosts. Identify farmers, ranchers, and urban land users who practice conservation measures that best meet your community's needs. Get their commitment to volunteer to showcase their practices as Neighbor-to-Neighbor tour hosts.

Seek hosts who are comfortable with a variety of people and at ease when talking about their conservation ethic and activities. Topics for discussion when visitors arrive at a tour stop might include the following: Which terrace design (broad base, grassed back slope, or narrow base) is most suitable for soil erosion control? How is water quality enhanced by conservation tillage? How do various storm-water management practices prevent flooding?

4. Emphasize overall environmental quality. Neighbor-to-Neighbor is designed to tell the broad conservation story, not just one aspect of it. Therefore, select tour sites that show the interrelationships of natural resources, such as how conservation activities and wildlife can thrive in harmony. Explain to your visitors how healthy and diverse wildlife populations generally reflect production within long-term land-use capabilities.

5. Create fact sheets that describe conservation measures featured at each site. Remember that Neighbor-to-Neighbor's power base is local and intensely personal, yet the base is highly diversified. Contact professional conservationists for help in developing fact sheets. Government agencies ready to assist in this important task include the U.S. Department of Agriculture's Soil Conservation Service (SCS), Extension Service (ES), Agricultural Stabilization and Conservation Service (ASCS), and State fish and game

agencies. Helpful private sector groups include the National Audubon Society, Farm Bureau, and Future Farmers of America.

6. Consolidate fact sheets for public presentation. Create Neighbor-to-Neighbor notebooks which include multiple rip-out copies of all fact sheets developed in your district. Index the notebooks by host name and by featured conservation practices.

7. Use your imagination. Place notebooks where neighbor meets neighbor—in coffee shops, garden centers, grain elevators, conservation district offices, barber shops, farm machinery dealerships, banks, grocery stores, libraries, schools, and civic centers.

8. Create large, clearly visible Neighbor-to-Neighbor road signs. Place signs adjacent to tour sites. Include host's name, conservation district phone number, and conservation practice(s) on view.

9. Keep tours current. Conservation is an ongoing, ever-changing process: day-to-day, season-to-season, field-to-field, drought-to-flood, acorn-to-oak tree. Therefore, conservation treatments require the perspective of time. Update your fact sheets and tours as conservation requirements change.

10. Use computer software that is ready for you now. From start to finish, the entire Neighbor-to-Neighbor concept can be managed through an easy-to-use computer program now available. The software, copyrighted by the Conservation Commission of the State of Missouri, can be used with any personal computer that runs MS-DOS. It makes it easy to inventory tour sites, create fact sheets, and manage notebooks. The program also enables you to provide timely information about changing conditions at tour sites.

Additional information on Neighbor-to-Neighbor can be obtained from the State Information Officer, USDA, Soil Conservation Service, 555 Vandiver Drive, Columbia, MO 65202. Telephone: (314) 987-5222.

Shirley Foster Fields, public affairs specialist, SCS, Washington, D.C.

“... getting the practices applied will be the next big challenge...Cooperation, communication, and keeping our networks functioning will continue to be the key...”

Bringing The Pieces Together

WHAT DO bankers, catfish, and farmers have to do with the Food Security Act (FSA) implementation? “Plenty!” said David Ferrell, Soil Conservation Service district conservationist in McRae, Ga.

“Bankers and farmers have always had a lot in common. The catfish? Well...discussion of serious business always goes better following a good meal.”

After the initial FSA program was outlined, the Altamaha Soil and Water Conservation District (SWCD) and SCS approached local banks in 1986 about sponsoring a farmer meeting and fish fry.

District supervisors and Ferrell encouraged bankers because it was “good business” to help farmers un-

derstand the FSA program and its links to price supports and other U.S. Department of Agriculture benefits. The loss of price supports could affect outstanding bank loans.

The lending institutions wholeheartedly supported the idea, and plans were made to hold the meeting. The meeting drew a crowd—over 150 farmers. The Agricultural Stabilization and Conservation Service (ASCS) and SCS explained the complicated program in simple terms.

“Looking back,” Ferrell said, “this meeting was critical for the agricultural community. It allowed us to answer many questions farmers had about the conservation provisions. We were also able to let farmers know of our intent to help them meet the compliance provisions of FSA—if they wanted to. There was a lot of positive feedback from the farmers.”

The meeting enhanced working relations between SCS, ASCS, Extension Service (ES), Farmers Home Administration, the Altamaha SWCD, and the Georgia Forestry Commission.

“Legislation provided the opportunity for us to work together. We had the insight to take advantage of that opportunity,” said Ferrell. “The bottom line for all of us was to provide timely, accurate information to our clients.”

Chuck Riley, ASCS director in Telfair County, said ASCS had critical data in its computers just sitting there—data that SCS needed. “So, we began sharing our mailing lists and owner-operator records,” Riley said. “SCS merged the information with their technical data on soils, then targeted the people who

needed to know more about the Conservation Reserve Program (CRP) and other FSA conservation provisions. It’s worked great!”

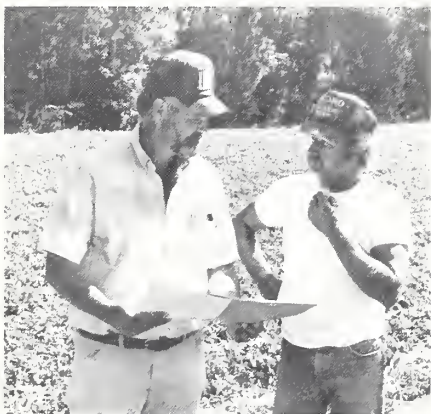
ASCS and the Altamaha SWCD included key FSA information in their monthly newsletters. ES set aside time during producer meetings to discuss FSA compliance. The Georgia Forestry Commission encouraged tree planting under CRP.

Special efforts were made to contact minority land users and absentee landowners. Ferrell, along with the Altamaha district chairperson and the ASCS committee chairperson, met at a local church with interested black landowners to explain CRP and other options available to help them comply with FSA provisions. Absentee landowners were also interested in CRP, and ASCS and SCS provided the necessary information to them.

A no-till drill, purchased through the Tri-County Resource Conservation and Development Council, is being operated by the Altamaha SWCD to encourage farmers to use more intensive land management and no-till farming methods. It’s helping farmers implement their conservation plans.

“With compliance plans signed, getting the practices applied will be the next big challenge,” said Ferrell. He added that “cooperation, communication, and keeping our networks functioning will continue to be the key—and a good catfish meal never hurts.”

Diane Holcomb, public affairs specialist, SCS, Athens, Ga.



SCS Georgia State committee technician Keith Granger, left, discusses conservation planning for highly erodible land with farmer Thomas Giddens.

"Only 500 acres of upland cotton were being planted no-till with cover in Mississippi prior to 1987," said Heard. He predicts over 5,000 acres for 1990.

Cotton Goes Under Cover In Deep South

"TRIED 5 ACRES the first year, 250 acres the next, and 600 acres in 1990," said Bernard King, a Rankin County, Miss., upland cotton farmer. "Using no-till plus native cover and old crop residues has eliminated the need for cultivation and most other tillage operations."

King participates in a demonstration-site program, coordinated by the Soil Conservation Service's Plant Materials Center (PMC) in Coffeeville, Miss., to show farmers of upland cotton that no-till planting plus cover crops acceptably reduces soil erosion on loessial soils in the Deep South.

"I save money, time, and equipment wear, and I hold onto my topsoil," added King. "Farmers who can switch to no-till cotton farming using cover will spend less time preparing to plant and have more time for other activities."

Loessial soils are in the undulating, upland parts of Arkansas, Louisiana, Mississippi, and Tennessee. Heavy rains often occur there when cotton plants are small and the ground is least protected.

"Over 1 million acres of upland cotton are grown on these soils," said L. P. "Pete" Heard, SCS State conservationist for Mississippi.



"Pete" Heard, left, SCS State conservationist for Mississippi, checks and discusses ground cover in Bernard King's no-till planted upland cotton field in Rankin County, Miss. King participates in SCS's Coffeeville PMC demonstration site program, cotton plus cover. (SCS photo.)

"Yearly soil erosion losses approach 50 tons per acre, where conventional planting and several tillages per year are used."

Upland cotton farmers with Food Security Act (FSA) compliance plans need innovative assistance from SCS to "conservation treat" their highly erodible lands, Heard noted. Otherwise, they may have severe difficulty meeting conservation compliance stipulations, if they wish to remain eligible for U.S. Department of Agriculture program benefits.

"Convincing farmers to change life-long farming practices and systems will not be easy," Heard cautioned. Farms selected for demonstration sites had farmers who were respected community leaders—"Their opinions in farming matters needed to be influential."

In 1987, Herby Bloodworth, conservation agronomist, began directing PMC activities associated with demonstration sites in Louisiana and Mississippi and with ex-

perimental plots at the PMC.

Louisiana picked one centrally located site and used wheat and hairy vetch cover crops with various cotton tillage methods.

Mississippi picked 3- to 5-acre sites on five farms scattered throughout the loessian soils resource area. Each farmer used a different cover crop: wheat, hairy vetch, crimson clover, arrowleaf clover, and native cover.

Selected farmers planted and managed their cover crops, then no-till planted cotton into the "burnt-down" cover. They also assisted with field days and helped promote no-till cotton production.

"The PMC evaluates how cover affects cotton production, compares cover crop growing techniques, and measures effects of soil-applied herbicides," said Bloodworth.

Demonstration site results through 1989 showed comparable cotton yields for no-till plantings

...many USDA and conservation district field employees performed admirably and...resource protection benefits have been substantial...

plus cover versus conventional plantings, the PMC reported. Extra costs associated with planting cover crops may limit full-scale adoption by farmers; however, native cover also works and reduces costs.

Many long-used cotton fields have low organic levels. Some farmers said they would readily use cover crops to build up organic matter even though it would cost extra.

"Test" farmers said that cover crops paid off in the long run with reduced weeds and improved soil-moisture retention.

Of the cover crops tested on the demonstration sites, some grew rapidly in the fall and most could be planted with no-till drills. And most produced abundant dry matter that lingered well into the cotton season.

"Only 500 acres of upland cotton were being planted no-till with cover in Mississippi prior to 1987," said Heard. He predicts over 5,000 acres for 1990.

"We've planned over 25 field days in Mississippi for 1990," added Heard. "Local soil and water conservation districts will help sponsor them.

"Farmers have readily accepted this new technology, cotton and cover. We have many new converts each year. And it will help producers with FSA compliance plans."

James S. Parkman, conservation agronomist, and **Ramon L. Callahan**, State resource conservationist, SCS, Jackson, Miss.

New Study Looks at How Farm Bill Is Implemented

IF THE PAST truly is prologue, the Soil and Water Conservation Society (SWCS) assessment of the conservation provisions of the 1985 Food Security Act (FSA) should be invaluable in the crafting of the 1990 farm bill.

The SWCS report was funded by the Joyce Foundation of Chicago, Ill. SWCS is a professional organization whose members include researchers, administrators, educators, technicians, and farmers. All have a profound interest in the wise use of the world's land and water resources.

The steering committee consisted of representatives of the National Research Council, the Center for Resource Economics, the National Association of Conservation Districts, the American Farm Bureau Federation, SWCS, and three U.S. Department of Agriculture (USDA) agencies: the Soil Conservation Service, the Agricultural Stabilization and Conservation Service, and the Extension Service.

SWCS decided in mid-1988 to independently evaluate how well USDA and its cooperating agencies

were implementing the FSA's Conservation Title. The Title's approach was unprecedented: tying receipt of most Federal farm program benefits to application of conservation practices by agricultural producers.

The assessment staff visited 22 field locations in counties selected by the steering committee as "representative of the conservation challenges confronting agricultural producers and the implementing agencies." Fifteen of the visits focused on highly erodible land (HEL); the other seven focused on swampbusted wetlands.

The report concluded that many USDA and conservation district field employees performed admirably and that resource protection benefits have been substantial, despite potential problems in implementation.

Among the findings relating to the **Conservation Compliance** provision:

- Significant reductions in soil erosion will result if conservation compliance plans are implemented as written. But a significant number of producers may find it difficult to implement their plans, and the overall erosion reduction may be less than reported or anticipated.
- Variation was found in the quality of conservation compliance plans and the planning process.
- Success rests primarily on the ability of producers to increase and maintain crop residue on the soil surface, especially by reducing

tillage. Other erosion-control options—such as stripcropping, contouring, or crop rotation—were generally not required or considered in developing plans.

- The SCS workload may exceed available staff capacity in many field offices between 1990 and 1995. This is because of a heavy demand for technical assistance to implement and monitor compliance plans and a need to revise a substantial proportion of them.

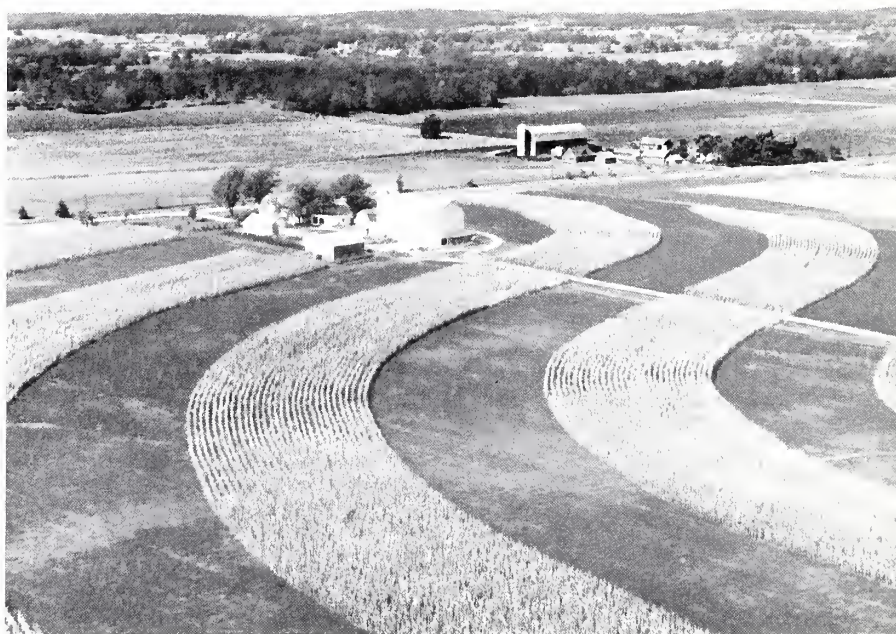
Other findings of the report concerned the Conservation Reserve Program, "Swampbuster," and "Sodbuster":

The **Conservation Reserve Program (CRP)** is strongly supported by producers, local USDA program managers and producer-committee members, and agribusiness representatives. Cooperation among USDA agencies was good at most locations.

Soil erosion control on CRP acreage will be substantial once adequate vegetative cover is established, but the per-acre and total soil savings may be less than reported. The establishment of permanent vegetative cover on some CRP acreage has been delayed by drought, insects, and weeds.

The CRP will yield substantial wildlife conservation benefits despite little attention having been paid to wildlife in the development of most CRP plans.

The **Swampbuster** provision, which discourages the conversion of wetlands to cropland, has slowed conversion. This is particularly true regarding larger wetlands. But, some violations are occurring. In general, the assess-



ment staff found that SCS officials are making accurate wetland determinations.

The staff found widespread support for the swampbuster provision, but the support is more tenuous than with other provisions in the Conservation Title. Many producers define "wetland" differently than does the law and its administrative rules. For example, some disagree that small potholes are wetlands when many are less than an acre and they may hold water only a few weeks in spring and early summer.

The **Sodbuster** provision, which requires a conservation plan whenever HEL is broken out for cropping purposes, appears to have slowed conversion of HEL in grass or trees to cropland. While a variety of practices were included in the plans, there was heavy reliance on crop-residue management tech-

niques. Some producers may find these techniques difficult to apply and maintain.

Other difficulties with "sodbuster" include inadequate documentation and some confusion about which agency is spot-checking producers.

The report concludes that if the Conservation Title is to serve as a basis for improved agricultural policy, implementation of these four main provisions must proceed in a technically, economically, and politically acceptable fashion. In short, each must prove out "on the ground."

Implementing the Conservation Title of the Food Security Act of 1985 is available for \$18.00 (\$15.00 for SWCS members), postpaid, from the Soil and Water Conservation Society, 7515 N.E. Ankeny Road, Ankeny, IA 50021-9764.

Jacquier plans to double the herd size, build a new barn with an enlarged milking parlor, and construct an animal waste management system.

Connecticut Farm Alters Forage Production

“WE HAD TO change things on Elm Knoll Farm,” said David

Jacquier, “as a result of FSA obligations.” The Jacquier family operates this 400-acre dairy farm in East Canaan, Conn.

“But the economics work out, and we can go ahead now with plans to expand dairy production.”

One-quarter of the acreage was classified as highly erodible land (HEL) and needed Food Security Act compliance measures implemented to remain eligible for U.S. Department of Agriculture program benefits.

Kathleen Johnson, district conservationist in the Soil Conservation Service field office in Litchfield, helped Jacquier reach land-use decisions for his conservation plan.

“Previously, Jacquier grew corn for silage on almost all acres, including the HEL,” said Johnson. “Silage he didn’t use he sold to other dairy farmers.

“Now on his HEL acreage, he plants a grass-legume mixture in rotation with corn. He uses all his hay cuttings and gets full use of that acreage. And he derives erosion-control benefits.

“He processes cuttings to produce a partially fermented feed mixture called haylage. Haylage production is more reliable than haymaking because of Connecticut’s rainy summers,” Johnson added.

Jacquier constructed a new bunker silo at the farmstead to store his haylage within easy reach of his 350 cows and heifers.

“The silo really paid off in 1989,” said Jacquier. “Every load of

grass-legume haylage we stored, we fed—mostly to dry cows and heifers. There was virtually no waste.”

SCS data show that tonnage per acre of hay silage is much lower than that of corn in this part of Connecticut. By fully using his HEL acreage for the grass-legume mixture, plus using the remaining 300 acres for corn, Jacquier says he has more than enough feed for the present and for future expansion plans.

Jacquier plans to double the herd size, build a new barn with an enlarged milking parlor, and construct an animal waste management system. The latter will help protect the water quality of the Blackberry River that bisects his property.

The Blackberry is in the Housatonic River Watershed, one of 37 hydrologic units that SCS has targeted for increased technical assistance. The watershed is also an Agricultural Stabilization and Conservation Service special project. And the Connecticut Department of Environmental Protection is giving it high priority for water quality improvement.

The Jacquiers, by implementing their FSA plan, are doing their part to care for the land and improve water quality. And they can continue plans to increase dairy production.

Philip J. Morneault, public affairs specialist, SCS, Storrs, Conn., and **Paul G. DuMont**, associate editor, *Soil & Water Conservation News*, SCS, Washington, D.C.



Haylage, a partially fermented feed mixture from cuttings of a grass-legume planting, is used on the David Jacquier dairy farm in East Canaan, Conn. (SCS photo.)

"Everyone knew cover crops were a large part of the answer to controlling erosion," Law said. "Plus rye cover helps protect ground water..."

District Leadership Helps Meet Compliance

IMAGINE THIS: it's a hot August day. The corn, almost bursting from maturity, is waving slightly in a passing breeze. Suddenly, a plane appears on the horizon—not a crop-duster, but a low-flying plane broadcasting something directly into the corn. It passes over the cornfields, then flies off.

While this sounds like the beginning of an eerie science-fiction tale, it's actually a valid conservation technique: broadcasting a cover crop from an airplane. The Missaukee Soil and Water Conservation District in Michigan's Missaukee County initiated the "FLY YOUR RYE" program and has been successful in seeding approximately 2,200 acres in the past 2 years.

Innovative new programs were needed in Missaukee County to help farmers meet the conservation compliance provisions of the Food Security Act. Most of the conservation plans in the county include cover crops in fields where corn has been harvested for silage. Most farmers agreed that a cover crop is needed on the sandy land when there is no residue left to control erosion.

However, seeding a cover crop was not always the easiest thing to

do; seeding operations were often delayed by fall rains, finding rye seed was sometimes a problem, and having enough time to plant it during the busy autumn were major factors to consider.

When directors of the Missaukee district and the Soil Conservation Service sat down with property owners to explore ways to help farmers comply with their plans, district conservationist Steven Law came up with the winning proposal to broadcast rye seed directly into the corn a few weeks before it was cut for silage.

"Everyone knew cover crops were a large part of the answer to controlling erosion," Law said. "Plus rye cover helps protect ground water by taking in up to 40 pounds of nitrogen per acre instead of letting it leach out of the root zone."

Law's proposal was accepted and the "FLY YOUR RYE" program was initiated. The district decided to offer a complete package that included contracting for the airplane and pilot, contracting for the seed through a local elevator, which included a "tender" truck to load the airplane, and collecting and managing the \$13- to \$16-per-acre fee from participating farmers.

The price included the rye seed, which was broadcast at a rate of approximately 2 bushels per acre. The district also coordinated an information campaign that included news stories and newsletter articles to encourage farmers to participate, and personal contacts.

"Farmers seem to like the idea," Law said. "They like to watch it being applied, and they like the way it comes up. When the corn silage is harvested, it has already started to

grow, and I think the farmers like the fact that it is done for them when they are the busiest."

Another benefit of the program came in the spring when farmers were ready to plant corn.

"The cover crop program has had other benefits," said Jim Eisenga, chairman of the district's board of directors. "Our no-till program has really taken off because the cover crops provide residue needed for effective no-till."

Many agencies and people were part of the "FLY YOUR RYE" program. The Agricultural Stabilization and Conservation Service and the Clam River Watershed Project, a special project funded through the Michigan Department of Agriculture, shared the costs with participating farmers. The Soil Conservation Service provided technical guidance. Working with the agency was Mel Quist, the district's energy conservation technician who promoted the program and assisted with ground operations.

"'FLY YOUR RYE' is an example of the initiative and leadership soil conservation districts can provide to help farmers protect soil and water resources," said Alan Herceg, area conservationist at Traverse City.

"The most important thing about this program was that the district did what nobody else could do," Law said. "The district is taking leadership in helping farmers stay eligible for [U.S. Department of Agriculture] benefits and we're real proud of the effort."

Roger Howell, public affairs specialist, SCS, East Lansing, Mich.

"It's a whole different attitude. Instead of the regulatory type of approach...it's strictly a service approach."

'Gaining Ground' In Montana

The article "Gaining Ground" by John Halbert was published in the *Miles City Star* in Miles City, Mont., on May 11, 1990. It is reprinted with permission and has been adapted to meet the needs of this publication.

THE OLD MOTTO in American business was "The customer is always right." With minor modifications, the Montana [office] of the Soil Conservation Service wants to make that its new motto.

Using new management techniques and customer service concepts, the Montana State office of the SCS wants its people to view the agricultural producers as customers, resource management as product, and themselves as consultants. It also wants to turn the whole bureaucratic pyramid upside down and make the field offices—where the customer meets the consultant—the most important segment in the system.

The program, called "Gaining Ground," is being taught at a 3-day seminar in Miles City. It is the first in a series of workshops that will cover the entire State. "Gaining Ground" is a national pilot project, according to Jim DiBerardinis, a professor of speech communication at Montana State University.

DiBerardinis has worked with the SCS for 13 years and helped develop the program.

"This whole concept of customer service has been popular-



The district conservationist is explaining to the landowner how she can benefit from SCS' product, resource management. Under Montana's new program, good customer service is vital to daily operations. (SCS photo).

ized by the 'gurus' of management, Tom Peters [and] Steven Covey. Tom Peters wrote three of the bestselling books in this area, and I have been working with him for the last 6 years in doing national programs, bringing this kind of program to a national audience, every place from Philadelphia to California," DiBerardinis said.

"Taxpayers aren't willing to pay for just anything. They want a quality service for their dollars. It's the Federal agencies and the State agencies that can demonstrate quality that will get continual funding. We've got discriminating taxpayers now. What we've got to do is pay attention to that," DiBerardinis said.

Bob Graham, assistant State conservationist, said the goal is to meet or exceed the needs of the farmer or rancher.

"Instead of the government determining what's required and

what their needs are, it's more of a private sector approach, satisfying customer needs," Graham said.

"Of course that means asking them what their needs are, adding value to what we provide as a service. It means getting focus groups together, local folks to tell us what they want.

"The thing we can't do is work outside of the laws and the rules and regulations that have been laid out by Congress because our appropriations are based on us following those," Graham added, when asked what happens if a farmer wants to maximize short-term profit at the expense of the land.

"But that doesn't mean that if there is a requirement to maintain eligibility for [U.S. Department of Agriculture] programs, that there isn't a lot of flexibility to still let that producer have maximum production through other alternatives.

"If there's some additional value we can add to that by getting some other conservation partners involved to most cost-effectively run their operation so that their net profit is enlarged, it's a win/win [situation] for everybody.

"It's a whole different attitude. Instead of the regulatory type of approach that is so typical of the Federal bureaucracy, it's strictly a service approach," Graham said.

Dan Himsworth, SCS State public affairs specialist, said representatives of many other Federal and State agencies have been invited to the workshops. "Part of the concept of 'Gaining Ground' is creating an expanded partnership." [Himsworth added.]

A Different Look At FSA Planning

Wilbert Thompson, a farmer from LaCrosse, Va., can describe in detail each field he farms by size, shape, and location, including a State road number for reference. He can do this despite being legally blind.

Thompson met with the Soil Conservation Service field office in Boydton, Va., in November 1988 to prepare the Food Security Act (FSA) conservation plan needed for highly erodible croplands. Once Boyce Harvey, district conservationist in Boydton, Va., discovered Thompson was blind, he wondered how the planning was going to take place—with only an aerial photograph for reference.

Harvey said, "He made a rather pleasant experience out of what could have been a very frustrating time for each of us. He told me his farming plans for each field. And he knew who owned each farm and the identifying farm and tract numbers."

Thompson grows tobacco, corn, soybeans, and small grain. He plans to run all his crops on a 2-year rotation with rows running on the contour, and he also plans to have grassed waterways constructed where necessary.

Harvey was very pleased with Thompson's cooperation and commitment in wanting to develop a conservation plan to comply with FSA.



Wilbert Thompson, a blind farmer in LaCrosse, Va., works with his wife and son in the fields as they plant tobacco. (Photo by Cephas N. Hobbs).

"With the frustrations that can sometimes accompany FSA work," added Harvey, "a little refreshment is always nice."

William Cotter, former soil conservationist, SCS, Boydton, Va.

Environmental Field Days

The Beaufort Soil and Water Conservation District (SWCD) knows a classroom is the best place for students to learn math and English, but the Goose Creek State Park is a better place to learn about the environment in North Carolina.

The district and Goose Creek Park have been cosponsors of the environmental field days for all fourth-grade students in Beaufort County for the past 3 years. More

than 700 fourth graders participated in 1989.

During the 4 days, the fourth graders get hands-on learning experiences in six different topics: marine fisheries, wetlands, soils, soil conservation, forestry, and predatory birds.

The program has been so successful that the sponsors were winners in North Carolina's 1989 "Take Pride in America" program.

Located along the Pamlico River, Goose Creek Park offers students a wide variety of learning opportunities. The entire area is a delicate balance between nature and people.

At the marine fisheries learning station, located on the river's edge, an aquarium is set up containing many of the fish species found in the river. Representatives from the State's Department of Natural Resources and Community Development teach the students about how fish start in estuaries and move from there into larger waters as they grow. The students also learn about the effects of water quality on the estuaries and the fish produced.

At the wetland learning station, a park ranger stands waist deep in the swamp's mucky waters while he conducts his presentation. Students look on from a boardwalk constructed through the swamp.

Each child has the opportunity to touch and smell the mucky material of the swamp bottom. The ranger explains that the swamp is the settling basin for filtering water before it reaches the river. As the children leave the station, they have a better understanding of why wetlands are needed in the environment.



Fourth-grade students from Beaufort County, N.C., are intrigued by the park ranger's presentation on the swamp. (Photo by Ric Carter of the *Washington Daily News*).

Their next stop is the soils station. The Soil Conservation Service soils survey party leader covers information from how soils are formed to why soils are different. Each student has the opportunity to feel the difference between sand, silt, and clay, as well as other hands-on experiences.

At the soil conservation station, the SCS district conservationist set up two models of farms. One has poor conservation measures and the other has good conservation measures applied. At the first model, students learn of the adverse effects that poor conservation will have on the environment. At the second model, students see how good conservation measures help the environment. When asked which farm they would rather have, all point to the farm with conservation measures installed.

Representatives from the Weyerhaeuser Corporation staffed the forestry station and showed large color pictures, a slab from the base of a tree, and wood products that students use every day. Questions like "Did you know that there is wood fiber in the corn

flakes you eat?" help show students how interwoven wood products are with their daily lives.

A park ranger teaches students at the station about predatory birds. The ranger uses birds that have been mounted and gives an explanation of a predatory bird. Afterwards, students decide whether a bird is a predator or not from a list of distinguishing characteristics. The students listen to a tape of bird sounds and have fun guessing the bird species.

The fourth graders leave the park with a better understanding of the environment around them and how each of these aspects affects them. To reinforce the importance of caring for the environment, students are asked to put their drink cans in a special recycling bin.

The Beaufort SWCD believes that informing these students of the need for conserving natural resources will not only have a positive influence on their future but the Nation's as well.

Tim Etheridge, district conservationist, SCS, Greenville, N.C.

Wanted: Landowners To Help Kids Help Wildlife

- Do you own, rent, or lease some land?
- Do you have land in the Conservation Reserve Program or some other "set-aside" program?
- Do you like working with young people?
- Do you like watching wildlife?

If you can answer yes to more than one of these questions, then the Dakota Wildlife Trust would like to hear from you.

The Trust, a nonprofit, private conservation organization of Valley City, N. Dak., is working with several sportsmen's and civic groups across the State to sponsor the 1990 Youth for Wildlife Contest. The contest promotes youth working with landowners to plant wildlife habitat and food plots. Club members learn that wildlife, like humans, need habitat to survive.

The contest is open to all youth in grades K through 12. Under contest guidelines, they must work actively on the plot.

A panel of independent judges evaluates all contest plots. The top three entries at both local and State levels receive cash awards. Each individual or group that produces a plot receives a \$50 savings bond. The top State award is \$1,000.

Here is how the contest worked in one county last year.

A local landowner was interested in establishing a wildlife food

plot. He knew about the contest, so he contacted a local 4-H leader to see if the club would be interested in working with him to plant and take care of a food plot. The club was very interested.

Then the landowner contacted other local farmers who contributed both seed and equipment. This food plot planting became a community effort.

The 4-H club members helped seed and weed the site. The club also erected a sign close to a nearby road to inform passers-by that a wildlife food plot had been planted. The club also received a check for \$150, the top cash award in the locally sponsored contest.

The sponsors hope to repeat this type of cooperative wildlife success story but with more landowners participating. The only commitment needed is a few acres of land and some time.

The contest offers landowners the opportunity to share with their children or grandchildren a genuine outdoor experience. For landowners, the contest just might be a good way to educate city people about agriculture. Inviting city kids to participate would broaden their horizons.

The contest is ongoing, but forms should be filed by September 15, 1990. For more information on the Youth for Wildlife Contest, write The Natural State, NDSU Extension Service, Hultz Hall, North Dakota State University, Fargo, ND 58105, or telephone 701/237-7950.

Terry Messmer, wildlife specialist, North Dakota State University Extension Service, Fargo, N. Dak.

Land Judging Contest Promotes Conservation

Over 900 contestants from 33 States competed in the 39th annual Land, Pasture, and Range Judging Contest held near Oklahoma City in May.

Contest participants tested their individual and team skills in judging land, pasture, and range, as well as evaluating homesites. There were three divisions in each event: one for Future Farmers of America (FFA) members, another for 4-H members, and a third for adults.

Competitors evaluated characteristics of the land's topsoil, subsoil, and slope. And they recommended treatment to improve the land's adaptability to specific uses.

The Hundred, W.Va., FFA Chapter and the Elkart, Ind., 4-H Club claimed the national champion trophies in the land-judging category. The high-scoring FFA member was Gary Horn of Richmond, Ky., and Chris Griffith of Trego, Kans., was the top 4-H scorer. James W. Duffy of Roswell, N. Mex., was the adult division winner.

In the pasture and range contest, the national winners were the Haakon-Jackson 4-H Club, Philip, S. Dak., and the Cement, Okla., FFA Chapter. Shane Matt of Philip, S. Dak., was the high-scoring 4-H individual, while Monte Scammahorn of Apache, Okla., was the FFA winner. The adult division winner was Jim Hollarn of Apache, Okla.

Team honors for best in the



Contestants in the land-judging contest check texture and depth of topsoil and look for signs of erosion. (Photo by Dwain Phillips.)

homesite contest went to the Marion, Fla., 4-H Club and the Rochester, Ind., FFA Chapter. Individuals who scored highest were Kari Boswick of Marion, Fla.; David Cumberledge of Hundred, W. Va.; and Harold Eckler of Shelbyville, Mo., in the adult division.

The Oklahoma Association of Conservation Districts was the primary contest sponsor.

Assisting with the events were the U.S. Department of Agriculture's Soil Conservation Service, Farmers Home Administration, Extension Service, and Agricultural Stabilization and Conservation Service; the U.S. Department of the Interior's Bureau of Indian Affairs; the Oklahoma Conservation Commission; and Oklahoma State University.

Dwain Phillips, public affairs specialist, SCS, Stillwater, Okla.

Sustainable Agriculture in Temperate Zones

Edited by Charles A. Francis, Cornelia B. Flora, and Larry D. King

This publication reviews current thinking on practicing sustainable agriculture, with contributions from agricultural, biological, environmental, and social scientists.

Stressed are integrated approaches using biotechnology, engineering, systems studies, and other relevant scientific applications. Of particular interest is a

case study of a resource-efficient farm with livestock.

The 487-page work discusses stewardship, biodiversity, reliance on mixed food systems, and other approaches, and always with a view to reducing environmental degradation, maintaining economic viability, and stabilizing rural communities.

Topics covered include hybrids, pest and weed management, soil-fertility practices, legumes and crop rotations, soil biology, pasture management, livestock operations, sustainable agriculture conversions, low-input farming economics, policies and major issues, and future dimensions.

Reference listings with each chapter vary from 20 to 184; many

chapters have 100 or more; an author index is included along with an extensive subject index.

Although agronomists, pest managers, soil scientists, plant breeders, and conservation planners may benefit the most from this work, all SCS'ers can learn from this indepth look at the latest thinking and practice of sustainable agriculture.

The emphasis is on farming in temperate zones, with many contributions addressing U.S. agriculture, but the principles explored are applicable to agriculture in any region.

The hard-bound cost is \$69.95 from John Wiley & Sons, Inc., Order Department, 1 Wiley Drive, Somerset, NJ 08873-1272.

1990 Ag Software Directory

By Doane Information Services

This revised, updated, 72-page book provides a handy, compre-

hensive reference on the what, where, how, and who of farm computer software.

Listed are 600-plus commercial programs available for onfarm use, descriptions and performance of software packages, equipment requirements, demo availability, and prices. It also includes supplier

names, addresses, and phone numbers.

Cost is \$14.95 from Doane Information Services, P.O. Box 28660, St. Louis, MO 63146.

Other Doane books available include Farm Management Guide (\$18.95) and Facts & Figures for Farmers (\$21.95).

Agroforestry for Soil Conservation

By Anthony Young

Agroforestry covers land-use systems in which trees are grown with herbaceous crops, either in spacial arrangement or in rotation. Such trees can produce fuelwood, fodder, and fruit and can provide soil conservation.

The author treats soil conservation as both controlling erosion

and maintaining soil fertility. Soil conservation is paramount in the search for resource sustainability—economic production plus soil maintenance.

This 288-page book reviews the potential of agroforestry to contribute to soil conservation. The author summarizes present knowledge, including present accomplishments and apparent potential, and research needs.

Conclusions reached are that appropriate agroforestry systems can (1) potentially control soil erosion, (2) maintain soil organic matter and physical properties, and (3) pro-

mote efficient nutrient cycling. These apply to a wide range of climatic zones and soil types.

Social, economic, and technical obstacles have to be overcome to fulfill the potential contributions of agroforestry to soil conservation and to sustainable land use.

Cost including postage is \$27.95 from C-A-B International, North America, 845 North Park Avenue, Tucson, AZ 85719.

New in Print is prepared by **Paul DuMont**, associate editor, *Soil and Water Conservation News*.

Moving?

Send present mailing label and new address including zip code to:

U.S. Department of Agriculture
Soil Conservation Service
P.O. Box 2890, Room 6002-S
Washington, D.C. 20013-2890

BULK RATE
POSTAGE AND FEES PAID
USDA-SCS
WASHINGTON DC
PERMIT NO. G-267

Official Business

Penalty for private use, \$300

Conservation Calendar

September	10-13	Association of Official Analytical Chemists Annual International Meeting and Exposition, New Orleans, La.
	12-14	Global Environmental Solutions Conference & Exposition, EnSol, Santa Clara, Calif.
	18-20	International Conference on River Flood Hydraulics, Hydraulics Research, Wallingford, Oxfordshire, England
	18-20	40th National Public Policy Education Conference, Park City, Utah
	18-20	Sixth International Trade Fair and Congress for Biotechnology, Hanover, West Germany
	25-26	Experiment Station Committee on Organization and Policy Meeting, St. Louis, Mo.
October	3-4	Great Lakes Commission Annual Meeting, Erie, Pa.
	6-12	U.S. Animal Health Association Annual Meeting, Denver, Colo.
	14-18	Association of State Dam Safety Officials National Conference, New Orleans, La.
	16	World Food Day, Washington, D.C.
	22	Annual Meeting of the American Society of Agronomy, Crop Science Society of America, and Soil Science Society of America, San Antonio, Tex.
	28-Nov. 1	1990 National Irrigation Symposium & Irrigation Association Exposition, American Society of Agricultural Engineers, Phoenix, Ariz.
	29-Nov. 1	USDA Regional Training Conference for Women, Reno, Nev.
November	4	American Horticultural Society Meeting, Tucson, Ariz.
	7-9	"How Clean is Clean? Cleanup Criteria for Contaminated Soil and Groundwater," Air and Waste Management Association Meeting, Boston, Mass.
	11-13	National Association of State Universities and Land-Grant Colleges, Kansas City, Mo.
	26-29	Outlook '91: USDA Agriculture Outlook Conference, Washington, D.C.
December	2-5	America's Sea—A National Resource At Risk, New Orleans, La.
	5-7	National Association of Government Communicators Annual Conference, Arlington, Va.
	16-18	Sixth International Symposium on Agricultural & Food Processing Wastes, American Society of Agricultural Engineers, Chicago, Ill.